

ABSTRACT OF THE DISCLOSURE

A region affected by X-ray beam limiting within a fluoroscopic image is specified based on position information on beam limiting by an X-ray beam limiting device. A judgment is made as to whether the region affected superposes a first brightness measuring region (region of interest) within the X-ray fluoroscopic image, and when superposition is not judged, automatic brightness control is performed based on the first brightness measuring region. When superposition is judged, the first brightness measuring region is transformed, and automatic brightness control is performed with reference to a second automatic brightness measuring region that does not superpose the region affected.